ecology and environment, inc.

CLOVERLEAF BUILDING 3, 6405 METCALF, OVERLAND PARK, KANSAS 66202, TEL. 913/432-9961

International Specialists in the Environment

MEMORANDUM

Site:
ID #:
Break: 4/5
Other:

TO: Paul Doherty, EPA/DPO

FROM: David Kinroth, E & E/TATM DK

THRU: Joe Chandler, E & E/TATL

DATE: March 19, 1991

SUBJECT: Site Assessment: Dugan-Helterbrand Northview
TDD#: T07-9010-090
PAN#: EM00927SAA
OSC: Bob Wiggans

INTRODUCTION

The Ecology & Environment Technical Assistance Team (E & E/TAT) was tasked by the United States Environmental Protection Agency Emergency Planning and Response Branch (EPA/EP&R) to perform a site assessment at the former site of operation of the Dugan-Helterbrand Co., Inc. in Northview, Missouri. Specific elements of this task included assessment and documentation of site conditions and the collection of samples as necessary to determine if a removal action is warranted.

BACKGROUND

The Dugan-Helterbrand Co., Inc. (D & H) was involved in the recovery of silver from waste photographic and X-ray film backing using cyanide extraction processes. On September 21, 1990, during removal activities at the Dugan-Helterbrand facility in Marshfield, Missouri, a local resident, Mr. Kevin Rudolph, visited the command post and informed Hieu Vu (E & E/TAT) that the D & H company had previously operated out of a garage in Northview, Missouri, (Attachment A) for several years before relocating to the Marshfield facility. He told of rumors that waste liquid had been dumped in an abandoned well at this site. He also told TAT that the property had recently been purchased by someone and that the residents obtained their water from a nearby well. He felt that the site should be investigated. When TAT Vu inquired about a contact name and phone, Mr. Rudolph left without providing the information. TAT Vu relayed this information to Bob Wiggans (EPA/OSC) and was then requested to check out the facility in Northview. When TAT Vu drove by the site there was no one home. There was a mobile home, a garage building, and several old vehicles on the site. The mailbox had the name Bougher printed on it. All the garage windows were either painted black or blocked by objects inside the garage so the interior

could not be inspected. A well head was located directly south of the garage building with pipes running into the garage (Attachment B).

During PRP search activities conducted by Kathleen Enright (E & E/TAT) on the Dugan-Helterbrand Co., Inc., it was discovered that the company began operation in 1974 in Northview. At that time the company was only a broker of waste film for silver recovery operations, collecting waste film and shipping it to a facility in Texas. In 1976, the company began silver recovery operations using the cyanide extraction process. The company relocated operations to the Marshfield, Missouri, facility in 1980.

During telephone conversations with former employees of Dugan-Helterbrand, Dave Kinroth (E & E/TAT) discovered that the company was performing the extraction process in small, portable concrete vats. One employee said that they believed there had been three vats in operation at the site. None of the employees knew how the waste liquid was managed at the Northview site.

SITE ACTIVITY

On November 10, 1990, TAT Kinroth visited the Northview site and met with the resident, Mrs. April Bougher. She said that her husband, Curtis Bougher, and their children had lived on the property since August, 1990. She informed TAT that the property was currently owned by her mother. Mrs. Bougher was aware that the garage had formerly been used by the D & H company and that they had used cyanide containing liquids to process waste film for silver recovery operations. She also informed TAT that the well south of the garage served as their current water supply and that it had been tested for metals. She said that detectable levels of lead were present in the water at the time of analysis but well below drinking water standards. No cyanide analysis had been performed at that time. Mrs. Bougher then gave TAT a site tour. The only evidence indicating the D & H company's operations was an old smelter stored outside the garage. No vats or drums of waste were present inside the garage building. Arrangements were made to sample the well water and soil around the garage at a later date, in conjunction with an unrelated investigation at another site.

On January 17, 1991, TATMs Kinroth and Vu returned to the site to collect samples. One well water sample designated DHNV001 was collected in two one liter cubitainers for total metals and cyanide analysis. The well water sample was collected in accordance with SOP's for the sampling of residential wells. According to Mrs. Bougher, the well was 500 feet deep. The water volume of the well was estimated and the average flow rate from the spigot was determined. The well was then purged for twelve minutes, providing greater than three purge volumes, prior to sample collection. The portion for metals analysis was preserved with nitric acid to pH<2 and the portion for cyanide analysis was preserved with sodium hydroxide to pH>12. A composite soil sample consisting of ten aliquots from around the garage building and a background soil sample from a stand of woods about one mile northeast of the site, designated DHNV002 and DHNV003 respectively, were also collected for total metals and cyanide analysis. Soil samples were

collected with stainless steel spoons and pie pans and homogenized prior to placing in eight ounce glass jars. Standard field documentation, including sample tags, field sheets, and chain of custody procedures were followed. The samples were then shipped to Keystone Lab in Houston, Texas, for analysis.

FOLLOWUP ACTIVITIES

Analytical results for this project were received on February 13, 1991, following review of the data by the TAT Analytical Services Group. Quality assurance/quality control for this project was requested as a modified level 2. The data was determined to be of good quality (Attachment C). Table 1 presents the results for all samples.

TABLE 1

Parameter	Water DHNV001 (ug/L)	Soil DHNV002 (mg/kg)	Background Soil DHNV003 (mg/kg)
aluminum	<46.0	5500	8300
antimony	<24.0	<7.4	<6.3
arsenic	6.0	8.7	7.0
barium	27.0	220	31.0
beryllium	<1.0	0.63	0.32
cadmium	<5.0	<1.5	<1.3
calcium	125,000	15,000	770
chromium	<5.0	38.0	27.0
cobalt	<6.0	11.0	3.3
copper	5.5	53.0	4.0
iron	180	19,000	20,000
lead	<1.0	280	26.0
magnesium	60,000	1,400	520
manganese	8.0	1,100	160
mercury	<0.2	<0.15	<0.13
nickel	<20.0	17.0	9.5
potassium	4,000	690	600
silver	<5.0	7.7	<1.3
selenium	6.2	<0.92	0.87
sodium	11,000	61.0	<39.0
thallium	<2.0	<0.60	<0.53
vanadium	<5.0	32.0	35.0
zinc	600	630	24.0
cyanide	<10.0	16.0	<0.66

Analysis of the water sample did not show any of the contaminants tested to be present above the standards prescribed in "Drinking Water Regulations and Health Advisories" by the EPA Office of Drinking Water, April, 1990. The chart from this document which specifies the proposed standards for inorganics is included as attachment D.

Cyanide was detected in the composite soil sample (DHNV002) taken from the areas around the garage on site at 16 ppm and was not present in detectable quantities in the background soil sample (DHNV003). While

this indicates that cyanide contaminated materials were released to the environment at this site in the past, the company has not operated there in over ten years and the original levels of cyanide released probably degraded. The 16 ppm average detected in the composite sample may indicate the presence of a "hot" spot on site, however the cyanide remaining at this time is most likely fixed in the soil and would not present a significant health threat. Several of the metals (silver, lead, zinc, etc.) were detected at higher levels in the soil on site than in the background soil. The metal values for both soil samples were compared to reference values and typical concentration ranges listed in "Median Elemental Composition of Soils", 3370C, by Mark McClanahan, December 6, 1984. This list was obtained from charts attached to a memo distributed to Superfund field staff through the Center for Disease Control in January, 1985, to provide guidance values for those involved in the initial assessment of a site. The memo and list are attached for reference purposes as attachment E. This comparison indicates that several metals are present above the typical median values, however none of the metal levels were outside the concentration ranges considered normal, and the differences between the on site soil and the background soil could be due to natural variation in the elemental composition of the soil. No reference values for cyanide in soil were available.

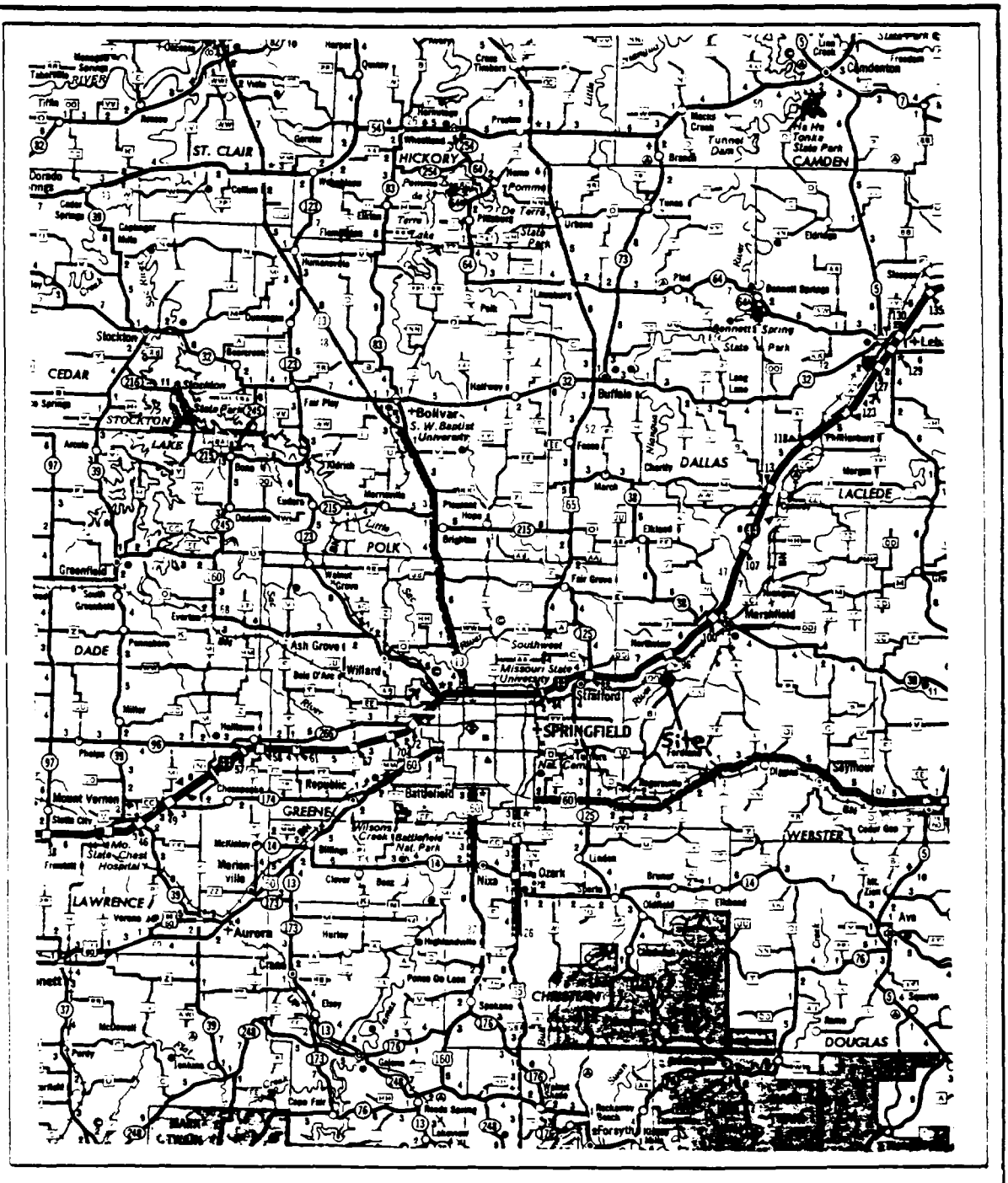
SUMMARY

E & E/TAT was tasked by the EPA Region VII to perform a site assessment at the former site of operation of the Dugan-Helterbrand Co., Inc. in Northview, Missouri. A sample of water from the residents well on the site, a composite soil sample, and a background soil sample were collected and submitted for total metals and cyanide analysis. Cyanide was not detected in the water and the levels of metals considered as health threats were below drinking water standard levels. The composite soil sample collected on site had higher levels of several metals than found in the background sample, however comparison with reference levels and ranges of metals typically found in soil did not indicate that any of the metals were present in unusually high concentrations. Cyanide was detected in the composite soil sample taken on site at 16 ppm and was not detected in the background sample. While this may indicate that there were releases of cyanide containing liquids or materials at the site in the past, by this time the cyanide has degraded to levels that do not pose a significant threat to public health or the environment. Wastes are no longer present at this site, and no further work is considered necessary.

ATTACHMENTS

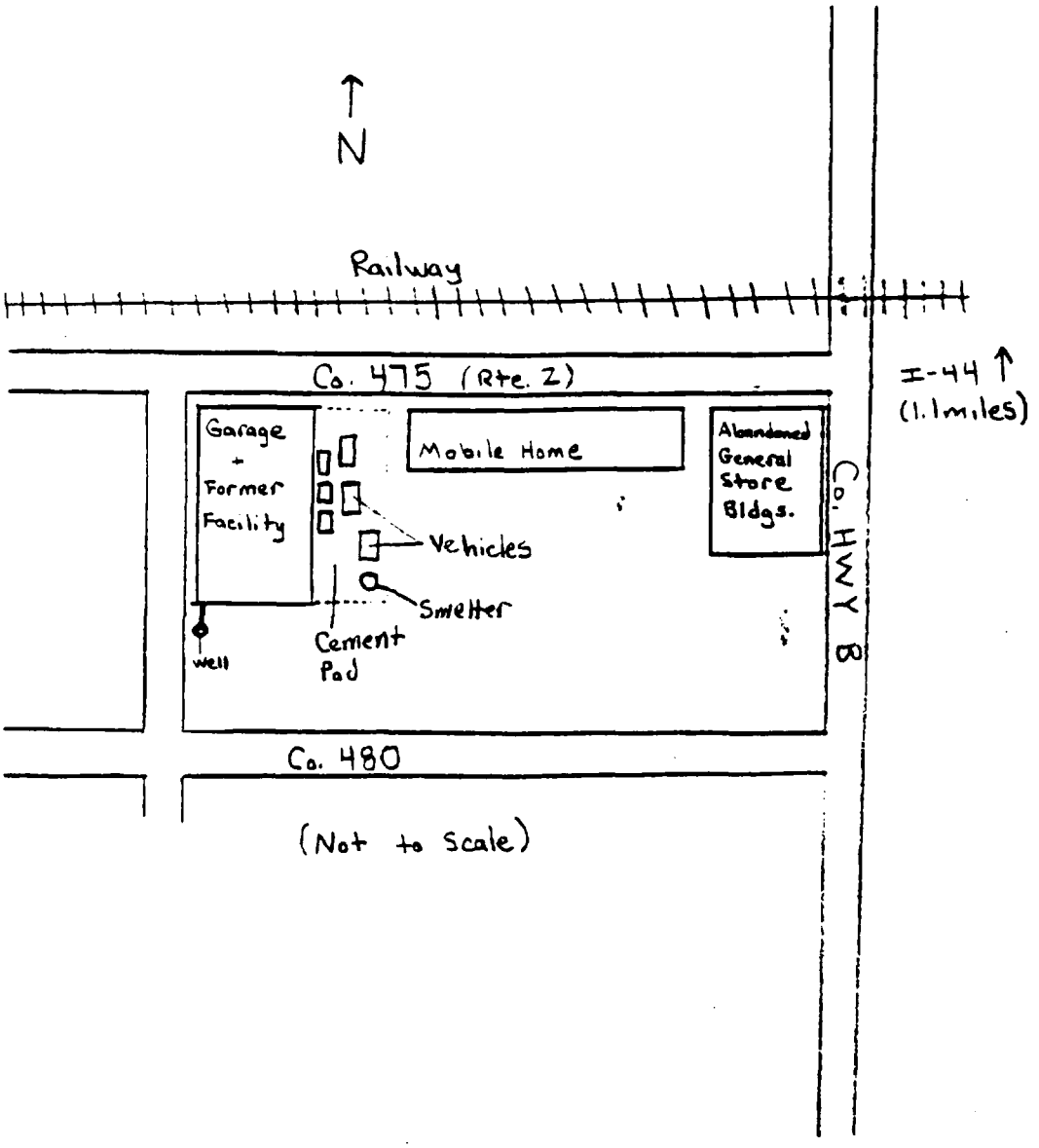
A - Site Location Map
B - Site Sketch
C - Analytical Data
D - Drinking Water Regulations and Health Advisories - EPA, April 1990.
E - Median Elemental Composition of Soils - McClanahan, M. 3370C., Nov. 6, 1984.
F - PA/SI Forms

ATTACHMENT A



DUGAN-HELTERBRAND NORTHVIEW
NORTHVIEW, MISSOURI
TDD#: T07-9010-090
PAN#: EMO0927SAA

ATTACHMENT B



DUGAN-HELTERBRAND NORTHVIEW

TDD#: T07-9010-090
PAN#: EMO0927SAA

ATTACHMENT C

MEMORANDUM

TO: David Kinroth, E & E/TATM

FROM: Darrell Messbarger, E & E/TATM

DATE: February 12, 1991

SUBJECT: Data Review of Dugan/Helterbrandt Northview Site
TDD# T07-9012-013
PAN# EM00919ABA

Quality Assurance/Quality Control for this analytical project was requested as a modified Level 2.

The data were produced under the overall CLP Guidelines without the data package normally produced by the vendor laboratory. All necessary parts of the analytical scheme appear to have been done correctly and with significant numbers of the prescribed QA/QC components.

This data package is of good quality. The particular importance of any individual analyte is to be left up to the site personnel.

Report
Prepared
for

Ecology & Environmental Inc.
6405 Metcalf
Bldg 3 Suite 404
Overland Park, KS 66202

Attention : Darrell Messbarger

by

Keystone Lab - Houston
8300 Westpark Drive
Houston, Texas 77063
(713) 266-6800

CERTIFIED BY : _____

PROJECT ID :
P.O. NUMBER :

WORK ORDER : H91-01.105
DATE RECEIVED : 19-JAN-1991

SAMPLE & ANALYSIS SUMMARY

Keystone Sample ID	Client's Sample Name	Date Collected	Sample Matrix
H91-01.105-001	LCS	17-JAN-1991	SOIL
H91-01.105-002	DHNV001	17-JAN-1991	WATER
H91-01.105-003	DHNV002	17-JAN-1991	SOIL
H91-01.105-004	DHNV003	17-JAN-1991	SOIL
H91-01.105-005	DHNV003 DUP	17-JAN-1991	SOIL
H91-01.105-006	DHNV003 SPIKE	17-JAN-1991	SOIL

Analysis ID	Parameter Description
CN_SX	Total Cyanide by Method 9010 (Non-aqueous)
MET_CLP_SX	Metals 23 TCL-Soil (CLP)
PSOLID	Percent Solids
CN	Cyanide
MET_CLP	Metals 23 TCL (CLP)

K E Y S T O N E L A B - H O U S T O N

Reported on 4-FEB-1991 at 14:04.

SAMPLE ID : H91-01.105-001
SAMPLE NAME: LCS

DATE COLLECTED: 17-JAN-1991
DATE RECEIVED : 19-JAN-1991

SAMPLING POINT: QA_QC
MATRIX : SOIL

Component name	Result	Units
Aluminum	1451	mg/Kg
Antimony	543	mg/Kg
Arsenic	33.7	mg/Kg
Barium	25.8	mg/Kg
Beryllium	95.0	mg/Kg
Cadmium	226	mg/Kg
Calcium	934970	mg/Kg
Chromium	483	mg/Kg
Cobalt	702	mg/Kg
Copper	33566	mg/Kg
Iron	105610	mg/Kg
Lead	225	mg/Kg
Magnesium	586180	mg/Kg
Manganese	968	mg/Kg
Mercury	12.9	mg/Kg
Nickel	280	mg/Kg
Potassium	792	mg/Kg
Silver	80.2	mg/Kg
Selenium	796	mg/Kg
Sodium	279	mg/Kg
Thallium	28.0	mg/Kg
Vanadium	333	mg/Kg
Zinc	1040	mg/Kg
Cyanide (Solid)	96.6	mg/Kg

Laboratory Control Sample

KEYSTONE LAB - HOUSTON

Reported on 4-FEB-1991 at 14:04.

SAMPLE ID : H91-01.105-002
SAMPLE NAME: DHNV001

DATE COLLECTED: 17-JAN-1991
DATE RECEIVED : 19-JAN-1991

SAMPLING POINT:
MATRIX : **WATER**

Component name	Result	Units
Aluminum	<46.0	ug/L
Antimony	<24.0	ug/L
Arsenic	6.0	ug/L
Barium	27.0	ug/L
Beryllium	<1.0	ug/L
Cadmium	<5.0	ug/L
Calcium	125000	ug/L
Chromium	<5.0	ug/L
Cobalt	<6.0	ug/L
Copper	5.5	ug/L
Iron	180	ug/L
Lead	<1.0	ug/L
Magnesium	60000	ug/L
Manganese	8.0	ug/L
Mercury	<0.2	ug/L
Nickel	<20.0	ug/L
Potassium	4000	ug/L
Silver	<5.0	ug/L
Selenium	6.2	ug/L
Sodium	11000	ug/L
Thallium	<2.0	ug/L
Vanadium	<5.0	ug/L
Zinc	600	ug/L
Cyanide	<10.0	ug/L

K E Y S T O N E L A B - H O U S T O N

Reported on 4-FEB-1991 at 14:04.

SAMPLE ID : H91-01.105-003
SAMPLE NAME: DHNV002

DATE COLLECTED: 17-JAN-1991
DATE RECEIVED : 19-JAN-1991

SAMPLING POINT:
MATRIX : SOIL

Component name	Result	Units
Aluminum	5500	mg/Kg
Antimony	<7.4	mg/Kg
Arsenic	8.7	mg/Kg
Barium	220	mg/Kg
Beryllium	0.63	mg/Kg
Cadmium	<1.5	mg/Kg
Calcium	15000	mg/Kg
Chromium	38.0	mg/Kg
Cobalt	11.0	mg/Kg
Copper	53.0	mg/Kg
Iron	19000	mg/Kg
Lead	280	mg/Kg
Magnesium	1400	mg/Kg
Manganese	1100	mg/Kg
Mercury	<0.15	mg/Kg
Nickel	17.0	mg/Kg
Potassium	690	mg/Kg
Silver	7.7	mg/Kg
Selenium	<0.92	mg/Kg
Sodium	61.0	mg/Kg
Thallium	<0.60	mg/Kg
Vanadium	32.0	mg/Kg
Zinc	630	mg/Kg
Cyanide (Solid)	16.0	mg/Kg

K E Y S T O N E L A B - H O U S T O N

Reported on 4-FEB-1991 at 14:04.

SAMPLE ID : H91-01.105-004
SAMPLE NAME: DHNV003

DATE COLLECTED: 17-JAN-1991
DATE RECEIVED : 19-JAN-1991

SAMPLING POINT:
MATRIX : SOIL

Component name	Result	Units
Aluminum	8300	mg/Kg
Antimony	<6.3	mg/Kg
Arsenic	7.0	mg/Kg
Barium	31.0	mg/Kg
Beryllium	0.32	mg/Kg
Cadmium	<1.3	mg/Kg
Calcium	770	mg/Kg
Chromium	27.0	mg/Kg
Cobalt	3.3	mg/Kg
Copper	4.0	mg/Kg
Iron	20000	mg/Kg
Lead	26.0	mg/Kg
Magnesium	520	mg/Kg
Manganese	160	mg/Kg
Mercury	<0.13	mg/Kg
Nickel	9.5	mg/Kg
Potassium	600	mg/Kg
Silver	<1.3	mg/Kg
Selenium	0.87	mg/Kg
Sodium	<39.0	mg/Kg
Thallium	<0.53	mg/Kg
Vanadium	35.0	mg/Kg
Zinc	24.0	mg/Kg
Cyanide (Solid)	<0.66	mg/Kg

ATTACHMENT D

Chemicals	Standards: Status Reg.*	NIPDWR (µg/l)	MCLG (µg/l)	MCL (µg/l)	Health Advisories: Status HA*	10-kg Child: One-day µg/l	10-kg Child: Ten-day µg/l	10-kg Child: Longer-term µg/l	70-kg Adult: Longer-term µg/l	70-kg Adult: RfD µg/kg/day	70-kg Adult: DWEL µg/l	70-kg Adult: Lifetime µg/l	70-kg Adult: µg/l at 10^{-4} Cancer Risk	Cancer Group
NORGANICS														
Aluminum	L	-	-	-	D	-	-	-	-	-	-	-	-	-
Ammonia	L	-	-	-	D	-	-	-	-	-	-	30000	-	D
Antimony	T	-	3	10/5	D	15	15	15	15	0.4	15	3	-	D
Arsenic	T	50	zero	-	D	-	-	-	-	1	-	-	3	A
Asbestos (fibers/l > 10um)	P	-	7E+06	7E+06	-	-	-	-	-	-	-	-	-	-
Barium	P	1000	5000	5000	F	5000	5000	5000	5000	-	-	5000	-	D
Beryllium	T	-	zero	1	D	30000	30000	4000	20000	5	200	-	0.7	B2
Boron	L	-	-	-	D	2000	2000	900	3000	90	3000	600	-	D
Cadmium	P	10	5	5	F	40	40	5	20	0.5	20	5	-	D
Chromium (total)	P	50	100	100	F	1000	1000	200	800	5	200	100	-	D
Copper	P	-	1300	1300	-	-	-	-	-	-	-	-	-	D
Cyanide	T	-	200	200	F	200	200	200	800	22	800	200	-	D
Fluoride	F	1.4-2.4	4000	4000	-	-	-	-	-	60	-	-	-	-
Lead (at source)	P	-	zero	5	-	-	-	-	-	-	-	-	-	B2
Lead (at tap)	P	50	zero	TT	-	-	-	-	-	-	-	-	-	B2
Manganese	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury	P	2	2	2	F	-	-	-	2	0.3	10	2	-	D
Molybdenum	L	-	-	-	D	-	-	-	-	-	-	-	-	D
Nickel	T	-	100	100	F	1000	1000	100	600	20	600	100	-	D
Nitrate (as N)[1]	P	10000	10000	10000	F	-	10000•	-	-	-	-	-	-	D
Nitrite (as N)	P	-	1000	1000	F	-	1000	-	-	-	-	-	-	D
Nitrate + Nitrite	P	-	10000	10000	-	-	-	-	-	-	-	-	-	-
Selenium	P	10	50	50	-	-	-	-	-	-	-	-	-	-
Silver	L	50	-	-	D	200	200	200	200	5	200	100	-	D
Sodium	L	-	-	-	D	-	-	-	-	20000***	-	-	-	-
Strontium	L	-	-	-	D	25000	25000	25000	90000	2500	90000	17000	-	D
Sulfate	T	-	400000	400000	-	-	-	-	-	-	-	-	-	-
Thallium	T	-	0.5	2/1	D	7	7	7	20	0.07	2	0.4	-	-
Vanadium	L	-	-	-	D	-	-	-	-	-	-	-	-	D
Zinc	L	-	-	-	D	-	-	-	-	-	-	-	-	-

ATTACHMENT E

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta GA 30333

SOURCE(S)

January 17, 1985

NOTE TO SUPERFUND FIELD STAFF:

RE: Attached Charts

Mark McClanahan has pulled together the attached charts which give you guidance values for a variety of toxic substances commonly found to contaminate water and soil. These values were collected from various government agency regulations (primarily EPA), published literature values, and in some cases derived from published values with assumptions presented in various documents (i.e., Chemicals in Water, Soil Chemicals, and Chemicals in Soils "Cancer Risk").

These values are not in any way to be construed as CDC recommendations, nor are they meant to replace the need for consultation with headquarters staff on the health hazards posed by specific substances, or evaluations of specific sites.

They are meant to give you a reference point for your initial assessment of a site. These values should be helpful, for instance, in your evaluation of whether or not a site needs review by a CEH Committee or instead confirmation by phone call with Mark or Frank that the site does not pose a health threat and need not be reviewed further.

As a further note, although many of the values are actual regulatory standards, many others are values established for specific purposes (such as water criteria for dialysis use) and therefore obviously have less applicability to Superfund sites. Nevertheless, in the latter instance they are the only values available and judiciously applied are helpful reference points.

If you have any questions on any of these, give Mark a call.

Georgi A. Jones

RECEIVED

From: McClanahan, M. 3370C. "Median Elemental Composition of Soils". November 6, 1984.

ELEMENT		MAXIMUM CONCENTRATION REPORTED AT SITE mg/kg	CONCENTRATION IN SOILS mg/kg (ppm) RANGE	TYPICAL MEDIUM	SOURCE
silver	Ag		0.01 - 8	0.4	5
aluminum	Al		10,000 - 300,000	71,000	1
arsenic	As		0.1 - 194	11	5
boron	B		2 - 270	20	1
barium	Ba		100 - 3,000	500	1
beryllium	Be		0.01 - 40	0.3	1
bromine	Br		1 - 110	10	1
calcium	Ca		LT 150 - 320,000	24,000	7
calcium	Ca		700 - 500,000	15,000	1
cadmium	Cd		0.01 - 7	0.5	6
chlorine	Cl		8 - 1,800	100	1
cobalt	Co		0.03 - 65	8	1
chromium	Cr		5 - 3,000	100	6
copper	Cu		2 - 250	30	1
flourine	F		6 - 7070	270	5
iron	Fe		100 - 550,000	40,000	1 and 5
gallium	Ga		2 - 100	20	1
germanium	Ge		0.1 - 50	1	1
mercury	Hg		0.01 - 4.6	0.098	5
potassium	K		80 - 37,000	14,000	1
lanthanum	La		2 - 180	40	1
magnesium	Mg		400 - 9,000	5,000	1
manganese	Mn		20 - 18,300	1,000	1, 5 & 6
molybdenum	Mo		0.1 - 40	2	1 and 6
sodium	Na		150 - 25,000	5,000	1
nickel	Ni		0.1 - 1,530	50	1 and 5
phosphorus	P		35 - 5,300	800	1
lead	Pb		LT 1 - 888	29	5
rubidium	Rb		20 - 1,000	150	1
sulfur	S		30 - 1,600	700	1
antimony	Sb		0.2 - 150	6	1,2,3 & 4
scandium	Sc		5 - 55	7	1
selenium	Se		0.1 - 38	0.4	1 and 6
silicon	Si		250,000 - 410,000	330,000	1
tin	Sn		1 - 200	10	1 and 6
strontium	Sr		LT 3 - 3,500	278	5
thorium	Th		2 - 13	9	8
titanium	Ti		150 - 25,000	5,000	1
thallium	Tl		0.1 - 0.8	0.2	1
vanadium	V		3 - 500	100	1, 6 & 7
tungsten	W		0.5 - 83	1.5	1
yttrium	Y		LT 10 - 200	40	1 and 7
zinc	Zn		1 - 2,000	90	1 and 5
zirconium	Zr		60 - 2,000	400	1

1. BOWEN, H. J. M., ENVIRONMENTAL CHEMISTRY OF THE ELEMENTS. ACADEMIC PRESS, NEW YORK. 1979.

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4. "GEOCHEMISTRY OF SOME ROCKS, SOIL, PLANT AND VEGETABLES IN THE CONTERMINOUS UNITED STATES". GEOLOGICAL SURVEY PROFESSIONAL PAPER 574 F 1975

5. URE, A. M., ET. AL., "ELEMENTAL CONSTITUENTS OF SOILS" ENVIRONMENTAL CHEMISTRY, VOL 2. PP 94-204 ed H. J. M. BOWEN, ROYAL SOCIETY OF CHEMISTRY, BURLINGHOUSE, LONDON, U.K. 1983.

6. PARR, JAMES F., MARSH, PAUL B., KLA, JOANNE M., LAND TREATMENT OF HAZARDOUS WASTES, AGRICULTURAL ENVIRONMENTAL QUALITY INSTITUTE, AGRICULTURAL RESEARCH SERVICE, USDA, BELTSVILLE, MARYLAND, NOYES DATA CORPORATION, PARK RIDGE, NEW JERSEY, 1983.

7. SHACKLETTE, H. T., ELEMENTAL COMPOSITION OF SURFACIAL MATERIAL IN THE CONTERMINOUS UNITED STATES, USGS PROFESSIONAL PAPER 574-D 1971.

8. LECHLER, T. J., ET. AL., "MAJOR AND TRACE METAL ANALYSIS OF 12 REFERENCE SOILS BY INDUCTIVELY COUPLED PLASMA-ATOMIC EMISSION SPECTROMETRY." SOIL SCIENCE 130 238-241, 1980.

ATTACHMENT F

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

EPA

I. IDENTIFICATION
01 STATE: MO | 02 SITE NUMBER:

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Dugan Helterbrand Northview	Rt. 2 Box 860				
03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Marshfield (Northview)	MO	65706	Webster	225	7
09 COORDINATES LATITUDE	LONGITUDE				
37 16 21.8	93 00 00.0				

10 DIRECTIONS TO SITE (Starting from nearest public road): I-44 to Northview exit, south on HWY B about 1.1 miles, cross Railroad tracks then take next right Co. 475 (Rte. 2), pass Abandoned/Vacant Buildings, site on left Box 860.

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)		
Darrell L. Patton (Shirley S.) spouse → Deceased	Rt. 2 Box 132-4		
03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Strafford Mo.		65757	(813) 833-0851
07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)		
Dugan-Helterbrand Co., Inc.	190 George St.		
09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
Marshfield	MO.	65706	( )

13 TYPE OF OWNERSHIP (Check one)
☑ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER: _____ (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☐ A. RCRA 3001 DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: ___/___/___ (MONTH DAY YEAR) ☑ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☑ YES DATE 11/10/90 (MONTH DAY YEAR) ☐ NO
BY (Check all that apply): ☐ A. EPA ☑ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR ☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): E & E/TAT

02 SITE STATUS (Check one)
☐ A. ACTIVE ☑ B. INACTIVE ☐ C. UNKNOWN

03 YEARS OF OPERATION
1974 (BEGINNING YEAR) | 1980 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN OR ALLEGED
This site was discovered during removal actions at Dugan-Helterbrand Co., Inc. in Marshfield, Missouri. The company operated at this facility in Northview from 1974 to 1980, with Silver recovery operations using CN processes from 1976 - 1980.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
It was unknown how wastes were disposed of at this site and whether any vats or waste storage still occurred/where present in the Garage building on site.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☐ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☑ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed; complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)			03 TELEPHONE NUMBER
Bob Wiggans, OSC	EPA/EPER			(913) 236-3881
04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Dave Kinroth	Contractor	E & E/TAT	(314) 298-0077	___/___/___ (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A SOLID
- ☐ B POWDER, FINES
- ☐ C SLUDGE
- ☐ E SLURRY
- ☐ F LIQUID
- ☐ G GAS
- ☑ D OTHER NONE Observed (Specify)

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A TOXIC
- ☐ B CORROSIVE
- ☐ C RADIOACTIVE
- ☐ D PERSISTENT
- ☐ E SOLUBLE
- ☐ F INFECTIOUS
- ☐ G FLAMMABLE
- ☐ H IGNITABLE
- ☐ I HIGHLY VOLATILE
- ☐ J EXPLOSIVE
- ☐ K REACTIVE
- ☐ L INCOMPATIBLE
- ☐ M NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references e.g., state files, sample analysis, reports)

TAT Files - Dugan-Hetterbrand Marshfield Site; PRP Search Report
Site visit by TAT on 11/10/90

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: MO | 02 SITE NUMBER:

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION | 02 ☐ OBSERVED (DATE _____) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~30 | 04 NARRATIVE DESCRIPTION
Former employees told of wastes being stored in an abandoned well on site.

01 ☐ B. SURFACE WATER CONTAMINATION | 02 ☐ OBSERVED (DATE _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION
None observed

01 ☐ C. CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION
None observed

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS | 02 ☐ OBSERVED (DATE _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION
Not applicable

01 ☒ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE _____) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION
Children living on site now could be potentially exposed to contaminated soils on site, if they exist.

01 ☒ F. CONTAMINATION OF SOIL | 02 ☐ OBSERVED (DATE _____) | ☒ POTENTIAL | ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: <1 (Acres) | 04 NARRATIVE DESCRIPTION
Past waste management practices are unknown. Soil around the site could potentially be contaminated.

01 ☒ G. DRINKING WATER CONTAMINATION | 02 ☐ OBSERVED (DATE _____) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION
Residents living on site use a well on site for water source, as well as several other residents that may have wells from same aquifer.

01 ☐ H. WORKER EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE _____) | ☐ POTENTIAL | ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION
Unknown

01 ☐ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE _____) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ | 04 NARRATIVE DESCRIPTION
None observed

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE: MO	02 SITE NUMBER:

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include names(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
(Spills, runoff, standing liquids, leaking drums)
03 POPULATION POTENTIALLY AFFECTED: _____ 04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: ~30

IV. COMMENTS

Although no wastes or immediate hazards where observed during preliminary site inspection, knowledge of the company's waste handling records at the Marshfield site is a cause for concern with this site, and sampling of the well water and soil is probably warranted.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

TAT Files - Dugan-Helterbrand Marshfield Files, PRP Search Report.
Site visit by TAT on 11/10/90

EPA FORM 2070-12 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION
01 STATE: MO | 02 SITE NUMBER:

II. SITE NAME AND LOCATION

01 SITE NAME	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER
Dugan Hetterbrand Northview	Rt. 2 Box 860

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST.
Marshfield (Northview)	MO	65706	Webster	225	7

09 COORDINATES: LATITUDE 37 16 21.8 | LONGITUDE 93 00 00.0

10 TYPE OF OWNERSHIP: [A] PRIVATE ☐ B FEDERAL ☐ C STATE ☐ D COUNTY ☐ E MUNICIPAL ☐ F OTHER ☐ G UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
1 17 91 (MONTH DAY YEAR)	☐ ACTIVE [I] INACTIVE	1974 (BEGINNING YEAR) 1980 (ENDING YEAR) ☐ UNKNOWN

04 AGENCY PERFORMING INSPECTION: [A] EPA [B] EPA CONTRACTOR E&E/TAT ☐ C MUNICIPAL ☐ D MUNICIPAL CONTRACTOR ☐ E STATE ☐ F STATE CONTRACTOR ☐ G OTHER

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO
Bob Wiggans	OSC	EPA/EP&R	(913) 236-3881
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO
Dave Kinroth	E&E/TAT	Contractor	(314) 298-0077
Hieu Vu	E&E/TAT		(913) 432-9961
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
April Bougher	Site Resident	Rt. 2 Box 860	(417) 468-3202
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
[P] PERMISSION ☐ WARRANT	10:00	Sunny ~40°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO
Bob Wiggans, OSC	EPA/EP&R	(913) 236-3881

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO	08 DATE
D. Kinroth	Contractor	E & E/TAT	314-298-0077	/ / (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A SOLID
- ☐ B POWDER FINES
- ☐ C SLUDGE
- ☐ E SLURRY
- ☐ F LIQUID
- ☐ G GAS
- ☒ D OTHER NONE Present (Specify)

02 WASTE QUANTITY AT SITE
(Measures of waste quantities must be independent)

TONS _____

CUBIC YARDS _____

NO OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☐ A TOXIC
- ☐ B CORROSIVE
- ☐ C RADIOACTIVE
- ☐ D PERSISTENT
- ☐ E SOLUBLE
- ☐ F INFECTIOUS
- ☐ G FLAMMABLE
- ☐ H IGNITABLE
- ☐ I HIGHLY VOLATILE
- ☐ J EXPLOSIVE
- ☐ K REACTIVE
- ☐ L INCOMPATIBLE
- ☐ M NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS			

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED _____ 04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: ~30

IV. COMMENTS

Sampling conducted 1/17/91 to determine if any residual contamination of groundwater or soil existed on the site.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

TAT Files - Dugan Hetterbrand Marshfield - PRP Search Report
TAT Files - Dugan Hetterbrand Northview Files & Site Assessment Report

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MO	

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — [X] POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~30 — 04 NARRATIVE DESCRIPTION
Former employees / local residents told of rumors of wastes being stored in an abandoned well on site.

01 ☐ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION
None observed

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION
None observed (using HCN Monitor)

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION
Not applicable

01 [X] E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) — [X] POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION
Residents and children in area could be exposed to contaminated soils on site, if they exist.

01 [X] F. CONTAMINATION OF SOIL — 02 ☐ OBSERVED (DATE: _____) — [X] POTENTIAL — ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: <1 (ACRES) — 04 NARRATIVE DESCRIPTION
Past waste management practices are unknown. Soil around the site could potentially be contaminated.

01 [X] G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) — [X] POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: ~30 — 04 NARRATIVE DESCRIPTION
Residents living on site use a well for water source, as well as several other residents that may have wells from same aquifer.

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION
Unknown

01 ☐ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) — ☐ POTENTIAL — ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: _____ — 04 NARRATIVE DESCRIPTION
None observed

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☑ J. NONE				

III. SITE DESCRIPTION

01 STORAGE DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

☑ A. BUILDINGS ON SITE
2 - Garage
Mobile Home

06 AREA OF SITE

< 1 (Acres)

07 COMMENTS

Unknown how wastes were stored, disposed of, or treated at this facility.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☐ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

Past waste management practices are unknown

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☐ YES ☐ NO

02 COMMENTS

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

Site inspection by E2E/TAT on 1/17/91

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION
01 STATE: MO | 02 SITE NUMBER:

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)	SURFACE	WELL	02 STATUS: ENDANGERED	AFFECTED	MONITORED	03 DISTANCE TO SITE
COMMUNITY	A. ☐	B. ☐	A. ☐	B. ☐	C. ☐	A. _____ (mi)
NON-COMMUNITY	C. ☐	D. ☑	D. ☐	E. ☑ possible	F. ☑	B. 0 (mi) on site

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☑ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) COMMERCIAL INDUSTRIAL IRRIGATION (No other water sources available) ☐ C. COMMERCIAL INDUSTRIAL IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER _____

03 DISTANCE TO NEAREST DRINKING WATER WELL 0 (mi) On Site

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
_____ (ft)	West	_____ (ft)	_____ (gpd)	☐ YES ☐ NO

09 DESCRIPTION OF WELLS (including usage, depth, and location relative to population and buildings)

6 inch casing
½" pipe
Resident said well is ~ 500' deep.

10 RECHARGE AREA		11 DISCHARGE AREA	
☑ YES ☐ NO	COMMENTS: This area serves as recharge zone for the main groundwater system for Springfield, Mo.	☐ YES ☐ NO	COMMENTS

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☐ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☑ D. NOT CURRENTLY USED

02 AFFECTED POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
_____	☐	_____ (mi)
_____	☐	_____ (mi)
_____	☐	_____ (mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN Unknown

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. _____ NO. OF PERSONS	B. _____ NO. OF PERSONS	C. _____ NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: Immediate Vicinity (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE: _____

04 DISTANCE TO NEAREST OFF SITE BUILDING: 0.1 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

Rural Village - lightly populated

EPA FORM 2070-13 (7-81)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MD	

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. 10^{-6} – 10^{-8} cm/sec ☐ B. 10^{-4} – 10^{-6} cm/sec ☐ C. 10^{-4} – 10^{-3} cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE (10^{-4} – 10^{-6} cm/sec) ☐ C. RELATIVELY PERMEABLE (10^{-2} – 10^{-4} cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
_____ (ft)	_____ (ft)	_____	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
_____ (in)	_____ (in)	_____ %		_____ %

09 FLOOD POTENTIAL	10
SITE IS IN _____ YEAR FLOODPLAIN	☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)		12 DISTANCE TO CRITICAL HABITAT (of endangered species)
ESTUARINE	OTHER	_____ (mi)
A _____ (mi)	B _____ (mi)	ENDANGERED SPECIES _____

13 LAND USE IN VICINITY

DISTANCE TO			
COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS	
		PRIME AG LAND	AG LAND
A _____ (mi)	B _____ (mi)	C. _____ (mi)	D _____ (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MO	

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	1	Keystone Lab- Houston, Tx.	2/13/91
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	2		
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☑ GROUND ☐ AERIAL

02 IN CUSTODY OF TAT Files
(Name of organization or individual)

03 MAPS ☑ YES ☐ NO

04 LOCATION OF MAPS TAT Report Attachments

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

Samples were submitted for total metals and cyanide analysis.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis reports.)

TAT Report- Dugan-Hetterbrand Northview includes Sample Analysis Report.

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
Shirley S. Patton 417-833-0651	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Rt. 2 Box 132-4	

05 CITY	06 STATE	07 ZIP CODE
Strafford	MO	65757

PARENT COMPANY (If applicable)

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER
Mike Cruise 417-466-3703	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
Rt. 2	

05 CITY	06 STATE	07 ZIP CODE
Marshfield	MO.	65706

IV. REALTY OWNER(S) (If applicable, list most recent first)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

TAT Files - Dugan Hetterbrand Northview logbook, Report

Site Resident is daughter of Current Owner - Shirley S. Patton - her deceased husband Darrell L. Patton's name is probably on deed to property

Mr. Patton purchased property from Mike Cruise - Mr. Cruise rented property to Dugan Hetterbrand Co. Inc.

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE: MO	02 SITE NUMBER:

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER
None	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

01 NAME	02 D+B NUMBER
Dugan Helterbrand Co. Inc.	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
190 George St.	

05 CITY	06 STATE	07 ZIP CODE
Marshfield	MO.	65706

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
~6	Mike Cruise

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

EPA FORM 2070-13 (7-81)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Dugan - Helterbrand Co Inc.	

03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE
190 George St.	

05 CITY	06 STATE	07 ZIP CODE
Marshfield	MO	65706

Cant document anything was generated on site.

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown			
03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE / 07 ZIP CODE		05 CITY / 06 STATE / 07 ZIP CODE	
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE / 07 ZIP CODE		05 CITY / 06 STATE / 07 ZIP CODE	

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
Unknown			
03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE / 07 ZIP CODE		05 CITY / 06 STATE / 07 ZIP CODE	
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P O Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE / 07 ZIP CODE		05 CITY / 06 STATE / 07 ZIP CODE	

V. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
MO	

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION	
01 STATE: MC	02 SITE NUMBER:

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

III. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis reports)

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POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION
01 STATE: MO | 02 SITE NUMBER:

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☑ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

Region VII TAT performed site assessment between 10/31/90 and 3/31/91. A well water sample and a composite soil sample were collected on site. A background soil sample was also collected. These were analyzed for total metals and cyanide. The water sample contained no detectable cyanide and levels of metals that could pose health threats were below regulatory standards or not detected. The soil sample collected on site had 16ppm cyanide detected in it compared to non-detect in the background sample. This level is not believed to pose a health threat because the company has not operated at this site since 1980, and by this time the cyanide present is likely to be fixed in the soil. The levels of metals in the soil samples were compared to reference values for initial assessment of a site and all were below or within ranges considered normal for typical soils. No further work at this site is anticipated.

III. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

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